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EXAMINER	
DUDNIKOV, VADIM	

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3663	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/585,910	HELMERSSON ET AL.	
	Examiner	Art Unit	
	VADIM DUDNIKOV	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *25-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *25-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 July 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/12/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements filed 7/12/2006 and all other information or that portion which caused it to be listed has been placed in the application file. The information has been considered. A signed copy of Form 1449 has been enclosed.

Drawings

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application for the reasons listed below in addition to the dated 7/12/2006.

The drawings do not show every feature described within the specification and the relationships therein in order to facilitate understanding of the material in which applicant considers his invention.

On page 10, line 35, on page 11, lines 1, 6, 12, 19, 29, 38 and on many other pages "the upper edge 33" is referred to FIGs. 4-13, but there is no numbering 33 in FIGs. 4-13. On page 10, line 35, on page 11, lines 1, 6, 20, 30, 99 and on many other pages "the lower edges 34" is referred to FIGs. 4-13, but there is no numbering 34 in FIGs. 4-13. On page 11, line 7 "wave peaks 38" is referred to FIGs. 4-13 but there is no numbering 38 in FIGs. 4-13.

On page 10, lines 7, 12 and 14 "fuel unit 20" is referred to FIG. 3, but there is no numbering 20 in FIG. 3.

The applicant is requested to perform a thorough review of both the drawings and specification to facilitate an appropriate correction to this objection. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Drawings are objected to under 37 CFR 1.75 (d) for not disclosing clearly what is Applicant's invention is.

Specification

3. Specification is objected to because: on page 10, line 35, on page 11, lines 1, 6, 12, 19, 29, 38 and on many other pages "the upper edge 33" is referred to FIGs. 4-13, but there is no numbering 33 in FIGs. 4-13. On page 10, line 35, on page 11, lines 1, 6, 20, 30, 99 and on many other pages "the lower edges 34" is referred to FIGs. 4-13, but there is no numbering 34 in FIGs. 4-13. On page 11, line 7 "wave peaks 38" is referred to FIGs. 4-13 but there is no numbering 38 in FIGs. 4-13.

On page 10, lines 7, 12 and 14 "fuel unit 20" is referred to FIG. 3, but there is no numbering 20 in FIG. 3.

The applicant is requested to perform a thorough review of both the drawings and specification to facilitate an appropriate correction to this objection.

The corrected specification is required in reply to the Office action to avoid abandonment of the application. The requirement for corrected specification will not be held in abeyance.

Moreover, no statement as required under 37 CFR 1.125(b) by applicant stating that the substitute specification does not contain any new matter was found in the file. Applicant is required to provide said statement.

Claim Objections

4. Claim **48** is objected to because of the following informality:

in claim 48, in line 3 replace –s number— to –a number— before "of".

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 25-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite because term, "sleeve-like" (claim25, lines 6-12) is a relative term.

Claims 26-47 are rejected as dependent on claim 25.

7. Claims 25-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite because limitation, "the sheet-shaped material" (claim25, line 10) lacks antecedent basis.

Claims 26-47 are rejected as dependent on claim 25.

8. Claims 25-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite because limitation, "said bending" (claim25, line 9) lacks antecedent basis.

Claims 26-47 are rejected as dependent on claim 25.

9. Claims 26 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite because limitation, the "first connection portion" and "the second connection portion" have not been introduced as components in the final product. Therefore, they lack antecedent basis.

Claim 27 is rejected as dependent on claim 26.

10. Claim 48 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite because term, "sleeve-like" (claim 48, lines 7, 10 and 12) is a relative term.

11. Claim 48 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite because limitation, “the sheet-shaped material” (claim 48, line 9) lacks antecedent

basis.

12. Claim 48 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite because limitation, "said bending" (claim 48, line 9) lacks antecedent basis.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claims 25-27, 31-40 and 48 are rejected under 35 U.S.C. 103(a) as being obvious over Nylind (US Patent No. 5,875,223) in view of Raven et al. ((US Patent No. 4,172,761, Raven hereinafter).

Regarding claims **25**, Nylind teaches: A spacer (7 in FIGs. 1a, 2, 3) for holding a number of elongated fuel rods (3 in FIGs. 1a, 1b, 24,5) intended to be located in a nuclear plant, said spacer comprising: a spacer enclosing a number of cells (orthogonal grid structure; column 3, lines 16+), each having a longitudinal axis and arranged to receive a fuel rod (3 in FIGs. 4, 5) in such a way that the fuel rod extends substantially parallel with the longitudinal axis, each cell being formed by a sleeve-like member (the sleeves 9 in FIGs. 3, 4, 5, column 3, lines 10+).

Nylind does not necessary discloses directly the limitation: “each sleeve-like member being manufactured from a sheet-shaped material that is bent to the sleeve-like shape, and wherein the sheet-shaped material before said bending has a first connection portion in the proximity of a first end of the sheet-shaped material and a second connection portion in the proximity of a second end of the sheet-shaped material, wherein the first end overlaps the second end of the sleeve-like member after said bending”.

However, it would have been obvious to one of ordinary skill in the art of nuclear reactor technology at the time of invention to include said limitation in view of Raven drawn to the nuclear reactor fuel grid design, solving a similar problem, who teaches the sleeve member (ferrules 2 in FIG. 3) is made from a strip metal blank which is deformed to

produce a sleeve with overleaping of ends for connecting by brazing or welding (as shown in FIGs. 3, 6; column 2, lines 39+).

Motivation for said inclusion derives from general knowledge that manufacturing of sleeve like grids by deformation and welding of sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

The limitation: "each sleeve-like member being manufactured from a sheet-shaped material that is bent to the sleeve-like shape, and wherein the sheet-shaped material before said bending has a first connection portion in the proximity of a first end of the sheet-shaped material and a second connection portion in the proximity of a second end of the sheet-shaped material, wherein the first end overlaps the second end of the sleeve-like member after said bending" represents a product by the process limitation. The patentability of a product does not depend on its method of production. If the product "spacer" in the product by process claim is the same as the prior art, the claim is unpatentable even though the prior art product was made by a different process. See In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Also see MPEP § 2113.

The limitation: "the sheet-shaped material before said bending" introduces a time element, and this is a product by process limitation. When interpreted as denoting time, limitations after "before" is have no patentable weight.

Regarding claim **26**, Raven and Nylind do not necessary disclose directly the limitation: "the first connection portion and the second connection portion are permanently connected to each other by means of at least one weld joint".

However, it would have been obvious to one of ordinary skill in the art of nuclear reactor technology at the time of invention to include said limitation in view of a general knowledge that a welding is most common method for connecting parts in manufacturing of grids, that often this method of connection is not disclosed in publication as obvious.

Motivation for said inclusion derives by general knowledge that manufacturing of sleeve like grids by deformation and welding of sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Regarding claim **27**, Raven and Nylind do not necessary disclose directly the limitation: said weld joint includes a spot weld.

However, it would have been obvious to one of ordinary skill in the art of nuclear reactor technology at the time of invention to include said limitation in view of a general knowledge that a spot welding is most common method for connecting parts in

manufacturing of grids, that often this method of connection is not disclosed in publication as obvious.

Motivation for said inclusion derives by general knowledge that manufacturing of sleeve like grids by deformation and spot welding of sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known, available technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Limitations of claims **31, 32, 33**: "the sleeve-like member has a material thickness, which is less than about 0.24 mm", "the sleeve-like member has a material thickness, which is less than or equal to about 0.20 mm", "the sleeve-like member has a material thickness, which is less than or equal to about 0.18 mm" are relating to routinely design and optimization with using of known algorithms and methods. This procedures is obvious for ordinary skill in the art and have not a patentable weight.

A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

Motivation for said inclusion derives by general knowledge that manufacturing of sleeve like grids by deformation and spot welding of a thin sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known, available technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

The limitation of claim **34**: "the sleeve-like member has an upper edge and a lower edge" is inherent for all spacers by definition.

On claim **35**, Nylind teaches: a number of ridges, which project inwardly towards the longitudinal axis and extend substantially in parallel with the longitudinal axis for abutment to the fuel rod to be received in the cell (four supports 10, as shown in FIGs. 3, 4, 5, column 3, lines 16+).

On claim **36**, Nylind teaches: said ridges extend from the upper edge to the lower edge (as shown in FIGs. 3, 5, column 3, lines 16+).

On claim **37**, Nylind teaches: each sleeve-like member includes at least four of said ridges (four supports 10, as shown in FIGs. 3, 4, 5, column 3, lines 16+).

On claim **38**, Nylind teaches: the lower edge, seen transversely to the longitudinal axis, has a wave-like shape with wave peaks and wave valleys and that the upper edge, seen transversely to the longitudinal axis, has a wave-like shape with wave peaks and

wave valleys (as shown in FIG. 5, column 3, lines 28+).

On claim **39**, Nylind teaches: said wave peaks are aligned with a respective one of said ridges, wherein said wave valleys are located between two adjacent ones of said ridges (as shown in FIG. 5, column 3, lines 28+).

Regarding claim **40**, Raven and Nylind do not necessary disclose directly the limitation: "said wave valleys of the upper edge".
However, it would have been obvious to one of ordinary skill in the art of nuclear reactor technology at the time of invention to include said limitation in view of a general knowledge that an upper edge can have the same shape as lower edge.
The sleeve-like members abut each other in the spacer along a connection area extending in parallel to the longitudinal axis between one of said wave valleys of the upper edge and one of said wave valleys of the lower edge (as shown in FIGs. 3, 4, 5).

Motivation for said inclusion derives by general knowledge that manufacturing of the grids with waveform edges is useful for improving of fuel rods cooling.
Applicant's claim limitation is characterized as an applying a known, available technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Regarding claims **48**, Nylind teaches: A fuel unit for a nuclear plant (1 in FIGs. 1a, 2) comprising: a number of elongated fuel rods (3 in FIGs. 1a, 1b, 2), number of spacers

(7 in FIGs, 1a, 2, 3) for holding the fuel rods, wherein the spacers enclosing a number of cells (9 in FIG. 3, 4, 5), each having a longitudinal axis and being arranged to receive one of said fuel rods (3 in FIGs. 4, 5) in such a way that the fuel rod extends in parallel to the longitudinal axis, each cell being formed by a sleeve-like member(as shown in FIGs. 4, 5, column 3, lines 10+).

Nylind does not necessary discloses directly the limitation: "substantially each sleeve-like member being manufactured from a sheet-shaped material bent to the sleeve-like shape from the sheet-shaped material before said bending having a first connection portion in the proximity of the a first end of the sheet-shaped material and a second connection portion in the proximity of a second end of the sheet-shaped material, wherein the first end overlaps the second end of the sleeve-like member after said bending".

However, it would have been obvious to one of ordinary skill in the art of nuclear reactor technology at the time of invention to include said limitation in view of Raven drawn to the nuclear reactor fuel grid design, solving a similar problem, who teaches the sleeve member (ferrules 2 in FIG. 3) is made from a strip metal blank which is deformed to produce a sleeve with overleaping of ends for connecting by brazing or welding (as shown in FIGs. 3, 6; column 2, lines 39+).

Motivation for said inclusion derives by general knowledge that manufacturing of sleeve like grids by deformation and welding of sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Claim limitation: "substantially each sleeve-like member being manufactured from a sheet-shaped material bent to the sleeve-like shape from the sheet-shaped material before said bending having a first connection portion in the proximity of the a first end of the sheet-shaped material and a second connection portion in the proximity of a second end of the sheet-shaped material, wherein the first end overlaps the second end of the sleeve-like member after said bending" represents a product by the process limitation. The patentability of a product does not depend on its method of production. If the product "spacer" in the product by process claim is the same as the prior art, the claim is unpatentable even though the prior art product was made by a different process. See In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Also see MPEP § 2113.

The limitation: "the sheet-shaped material before said bending" introduces a time element, and this is a product by process limitation. When interpreted as denoting time, limitations after "before" is have no patentable weight.

16. Claims 28-30 and 41-47 are rejected under 35 U.S.C. 103(a) as being obvious over Nylind (US Patent No. 5,875,223) in view of Raven et al. ((US Patent No. 4,172,761, Raven herein after) and further in view of Oh et al. (US Patent No. 6,608,881 B2, Oh hereinafter).

Regarding claim **28**, Nylind and Raven teach all limitation of claim 25.
Nylind and Raven do not necessary teach directly the limitation: "the spacer including at least one vane for influencing the coolant flow".
However, it would have been obvious to one of ordinary skill in the art of nuclear reactor technology at the time of invention to include said limitation in view of Oh drawn to the nuclear reactor fuel grid design, solving a similar problem, who teaches the vanes (swirl flow vanes 30, in FIGs. 8, 9, column 7, lines 10+).

Motivation for said inclusion derives from Oh teaches: to provide a spacer grid for nuclear fuel assemblies, which effectively generates a swirl flow of water within subchannels, thus improving the thermal mixing performance of the fuel assembly. Applicant's claim limitation is characterized as an applying a known technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Regarding claim **29,** Oh teaching includes limitation: said vane is formed by a portion of the material, which extends from the first connection portion (as shown in FIGs. 8-14).

Motivation for said inclusion derives from Oh teaches: to provide a spacer grid for

nuclear fuel assemblies, which effectively generates a swirl flow of water within subchannels, thus improving the thermal mixing performance of the fuel assembly. Applicant's claim limitation is characterized as an applying a known technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143)...

Regarding claim **30,** Oh teaching includes limitation: said vane is inclined in relation to the longitudinal axis (as shown in FIGs. 8-14).

Motivation for said inclusion derives from Oh teaches: to provide a spacer grid for nuclear fuel assemblies, which effectively generates a swirl flow of water within subchannels, thus improving the thermal mixing performance of the fuel assembly. Applicant's claim limitation is characterized as an applying a known technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Regarding claim **41,** Oh teaching includes limitation: the sleeve-like members are permanently connected to each other by means of weld joints (column 6, lines 3+).

Motivation for said inclusion derives by general knowledge that manufacturing of sleeve like grids by deformation and spot welding of sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known, available technique to a known device (method, or product) ready for improvement to yield predictable results.

Regarding claim **42,** Oh teaching includes limitation: said weld joint includes an edged weld at said connection area at least one of the upper edge and the lower edge (column 6, lines 3+).

Motivation for said inclusion derives by general knowledge that manufacturing of sleeve like grids by deformation and spot welding of sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known, available technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Regarding claim **43,** Oh teaching includes limitation: the sleeve-like member seen in the direction of the longitudinal axis has four substantially orthogonal long sides (as shown in FIGs. 9-14).

Motivation for said inclusion derives by general knowledge that manufacturing of sleeve like grids by deformation and spot welding of sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known, available technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Regarding claim **44,** Oh teaching includes limitation: each long side includes one of said ridges (as shown in FIGs. 10, 12-14).

Motivation for said inclusion derives by general knowledge that manufacturing of sleeve like grids by deformation and spot welding of sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known, available technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Regarding claim **45,** Oh teaching includes limitation: said vane extends outwardly from one of said long sides (as shown in FIG. 10, 12-14).

Motivation for said inclusion derives by general knowledge that manufacturing of sleeve like grids by deformation and spot welding of sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known, available technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Regarding claim **46,** Oh teaching includes limitation: the sleeve-like member seen in the direction of the longitudinal axis has four substantially orthogonal short sides, wherein each short side connects two of said of long sides (as shown in FIGs. 10, 12-14).

Motivation for said inclusion derives by general knowledge that manufacturing of sleeve like grids by deformation and spot welding of sheet strip metal is well available, non-expensive and reliable technology.

Applicant's claim limitation is characterized as an applying a known, available technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143)...

Regarding claim **47,** Nylind teaching includes limitation: each short side includes with a portion of one of said wave valleys of the upper edge and a portion of one said wave valleys of the lower edge, as detailed in rejection of claim 40.

Motivation for said inclusion derives by general knowledge that manufacturing of the grids with waveform edges is useful for improving of fuel rods cooling.

Applicant's claim limitation is characterized as an applying a known, available technique to a known device (method, or product) ready for improvement to yield predictable results (MPEP 2143).

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vadim Dudnikov whose telephone number is 571- 270-1325. The examiner can normally be reached on 8:00 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack W. Keith can be reached, Mon-Fri 7:00am-4:00 pm, at telephone number 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VD. 10/12/08

/Johannes P Mondt/
Primary Examiner, Art Unit 3663